



Annual Water Quality Report 2010 Grandwood Park Service Area

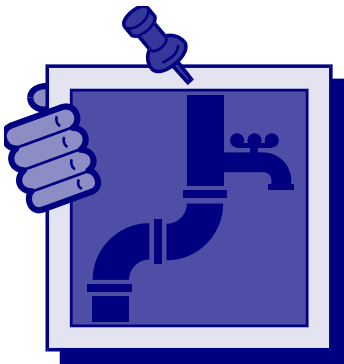
*Lake County, IL
Department of Public Works*

Purpose and Background

This is the annual water quality report (or consumer confidence report) for the period of January 1 to December 31, 2009. Each year we will issue a report of this type to provide information about the quality of our drinking water as well as details on the source of our water and what it contains.

The reports are being issued in compliance with the requirements of the Safe Drinking Water Act and are also intended to demonstrate our commitment to providing a safe and reliable supply of drinking water.

If you have any questions about this report or about your water system, please contact Phil Perna at (847) 377-7500 or by e-mail to pperna@lakecountyil.gov. You may also ask about opportunities for public participation at Lake County Board meetings where decisions are made that affect drinking water quality. We always like to hear from our customers.



The Water Source and Delivery System

There are nine wells that serve your community. They are located on Grandwood Drive (3), Geier Street, Center Street, Hutchins Road, Woodland Terrace (2) and Deer Trail Drive. Seven of the wells reach into a water bearing sand and gravel aquifer 150 feet below ground. The eighth well is drilled into a sandstone aquifer 1000 feet deep. The new ninth well was recently constructed at Grandwood Drive and Hutchins Road. This well was drilled to a depth of 1365 feet. In addition, a new 400,000 gallon elevated tank has been constructed and was made operational in the Fall of 2008. The combined capacity of our wells exceeds the average daily usage in the service area by 300%.

A network of water mains interconnects the dispersed well sites with an elevated tank and two ground level reservoirs with a total storage volume of 525,000 gallons to form a unified water supply and distribution system.



Water Quality

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 1-800-426-4791.



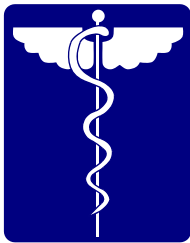
To ensure that tap water is safe to drink, the Environmental Protection Agency prescribes limits on the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Your tap water quality is consistently monitored by the County and the Illinois Environmental Protection Agency (IEPA).

Water quality is judged by comparing your water to USEPA benchmarks for water quality. One such benchmark is called the Maximum Contaminant Level Goal (MCLG). The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. This goal allows for a margin of safety. Another benchmark is a Maximum Contaminant Level (MCL). An MCL is the highest level of a contaminant that is allowed in drinking water. An MCL is set as close to an MCLG as feasible using the best available treatment technology.

Contaminant Sources in Drinking Water

Both tap and bottled water come from rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animal or human activity. Contaminants that may be present in untreated water include:

- Microbial contaminants such as viruses and bacteria can be naturally occurring or may come from sewage treatment plants, septic systems and live stock operations.
- Inorganic contaminants such as salts and metals can be naturally occurring or can result from urban storm water runoff, wastewater discharges, oil or gas production, mining, or farming.
- Pesticides and herbicides come from sources such as agricultural and residential storm water runoff.
- Organic chemical contaminants including synthetic and volatile organic compounds are by-products of industrial processes and petroleum production but can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.



Health Note

Some people may be more vulnerable to contaminants in drinking water than the general population. *Immuno-compromised* persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

Regulated Contaminants Detected

Compound (Units)	Highest Level Found	Range of Detection	MCLG	MCL	Violation	Probable Compound Source
Arsenic (ppb)	2.71	0 - 2.71	0	10	No	Erosion of natural deposits
Barium (ppm)	0.0376	0.0196-0.0376	2	2	No	Erosion of natural deposits
Gross Alpha (pCi/L)	1.6	0 - 1.6	0	15	No	Erosion of natural deposits
Fluoride (ppm)	1.04	0.92 - 1.04	4	4	No	Added for dental health
Iron (ppm)	0.476	0.236 - 0.476	n/a	1.0	No	Erosion from naturally occurring deposits
Sodium (ppm) *	53.5	37.9 - 53.5	n/a	n/a	No	Erosion of natural deposits, runoff
Combined Radium 226/228 (pCi/L)	1.6	1.0 - 1.6	0	5	No	Erosion of natural deposits
Total Trihalomethanes- TTHM's (ppb)	29	n/a	n/a	80	No	By-product of drinking water chlorination
Haloacetic Acids- HAA5 (ppb)	15.1	n/a	n/a	60	No	By-product of drinking water chlorination
Chlorine (ppm)	1.6	0.26 - 1.6	4	4	No	Water additive to control microbes
Beta/photon emitters (pCi/L)	12.1	n/a	0	50	No	Decay of natural deposits
Nitrate- as N (ppm)	0.58	0.17 - 0.58	10	10	No	Erosion of natural deposits
Mercury (ppb)	0.21	0 - 0.21	2	2	No	Erosion of natural deposits

* There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions.

Compound (Units)	90th Percentile	# Sites Over Action Level	MCLG	Action Level	Probable Compound Source
Copper (ppm)	0.34	0	1.3	1.3	Corrosion of household plumbing

Abbreviation	Definition
AL	Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
NTU	Nephelometric Turbidity Units is a measure of water cloudiness.
MCL	Maximum Contaminant Level is the highest level of a contaminant that is allowed in drinking water.
MCLG	Maximum Contaminant Level Goal is the contaminant level below which there is no known or expected health risk.
pCi/L	pico Curies per liter.
pos/month	The maximum number of positive samples collected in a calendar month.
ppb	Parts-per-billion is also referred to as micrograms per liter (µg/L). Equivalent to one ounce in 7,350,000 gallons of water.
ppm	Parts-per-million is also referred to as milligrams per liter (mg/L). Equivalent to one ounce in 7,350 gallons of water.



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